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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,848	09/05/2003	Kazuo Kato	S004-4211 (DIV)	7074

7590 06/07/2004

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EXAMINER
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SMITH, RICHARD A

ART UNIT	PAPER NUMBER
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2859

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/655,848	<b>Applicant(s)</b> KATO ET AL.	
	<b>Examiner</b> R. Alexander Smith	<b>Art Unit</b> 2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,3,5,6,8,9,11,12,14,15,17,18,20,21,23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,5,8,11,20 and 23 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 3,6,9,12,14,15,17,18,21 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/778,461.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### DETAILED ACTION

1. This application is in condition for allowance except for the formal matters as noted below.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

### *Election/Restriction*

2. Applicant's response with respect to the election/restriction filed on April 12, 2004 has been received.

3. With respect to the election/restriction, claims 20, 21, 23 and 24 and the sub-species A-E contained within each of these claims: the Applicant's election of sub-species A, i.e., an electronic azimuth indicator, is noted. Applicant timely traversed the restriction (election) requirement in the response filed on April 12, 2004.

Claims 2, 3, 8 and 9 are generic and allowable. Accordingly, the restriction requirement as to the encompassed sub-species A-E is hereby withdrawn and the limitations with regard to the non-elected sub-species B, C, D and E contained in each of the claims 20, 21, 23 and 24 is no longer withdrawn from consideration since all of the limitations in the respective claims 2, 3, 8 and 9 with regard to these sub-species depend from or otherwise include each of the limitations of an allowed generic claim.

In view of the above noted withdrawal of the restriction requirement as to the linked sub-species A-E of claims 20, 21, 23 and 24, applicant(s) are advised that if any claim(s) depending from or including all the limitations of the allowable generic linking claim(s) be presented in a continuation or divisional application, such claims may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once a

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restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

### ***Drawings***

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: deflection "è" in line 3 on page 13, and origin "P" in the second line from the bottom on page 15. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

5. The specification is objected to because of the following informalities:
- a. On page 1, the cross reference to related applications of 09/778,461 should also include --now U.S. Patent No. 6,640,454--.
  - b. On page 2, "studie d" in the fifth line from the bottom of page should be --studied--.
  - c. The abstract needs updated to more accurately reflect what is being claimed in this divisional application.

### ***Claim Objections***

6. Claims 3, 6, 9, 12, 14, 15, 17, 18, 21 and 24 are objected to because of the following informalities:

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Claim 3:

a. "an X-axis magnetic sensor" in line 5, "an X axis direction" in line 6, "an X axis" in line 10, "a Y axis magnetic sensor" in line 13, "a Y axis direction" in line 14 and "an Y axis" in line 18 are objected to since it appears to the examine that each of these should start with --a-- or at least maintain consistency.

b. "an detection axis" in line 17 should start with --a--

Claim 9:

a. "an X-axis magnetic sensor" in line 6, "the X axis direction" in line 7, "an X axis" in line 11, "a Y axis magnetic sensor" in line 14, "a Y axis direction" in line 15 and "a Y axis" in lines 18-19 are objected to since it appears to the examine that each of these should start with --a-- or at least maintain consistency.

b. In each of the lines 11 and 19, there is a phrase that states "axis passing the center." However claim 3 is similar and states "axis passing through the center" raising the question if --through-- should be added?

c. "ont he" in line 12 should be --on the--.

Claim 14: "said Y axis magnetic sensor", "said X axis magnetic sensor", "said X axis direction", and "said Y axis direction" lack an antecedent in claim 2.

Claim 17: "said Y axis magnetic sensor", "said X axis magnetic sensor", "said X axis direction", and "said Y axis direction" lack an antecedent in claim 8.

***Allowable Subject Matter***

7. Claims 2, 5, 8, 11, 20 and 23 are allowable.
8. Claims 3 and 9 would be allowable if rewritten to overcome the claim objections set forth in this Office Action.
9. Claims 6, 12, 14, 15, 17, 18, 21 and 24 would be allowable if rewritten to overcome the claim objections set forth in this Office Action and to include all of the limitations of the base claim and any intervening claims.
10. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The prior art cited in PTO-892 and not mentioned above disclose related electronic instruments.

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12. Of particular note is U.S. 6,606,799 B2 having a common assignee wherein column 13, lines 11-15 and 31-37 appear relevant.

With respect to claims 2 and 8 of the application: there appears to be no discussion in '799 regarding lines 11-15 and 31-37 of '799 that addresses whether the detection axis of the sensor and the direction of the magnetic field that is arranged on a straight line passing the center of the component coincide. Nor is a correcting circuit discussed with respect to the particular configuration discussed in lines 11-15 and 31-37 of '799.

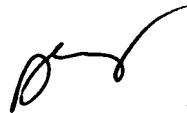
With respect to claims 3 and 9 of the application: there appears to be no discussion in '799 regarding lines 11-15 and 31-37 of '799 that addresses the detection axis of the Y axis magnetic sensor passing through the component when "passing through" refers to all locations of the component including the center. The special condition of being centered is disclosed in '799. Nor is a correcting circuit discussed with respect to the particular configuration discussed in lines 11-15 and 31-37 of '799.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. Alexander Smith whose telephone number is 571-272-2251. The examiner can normally be reached on Monday through Friday from 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Diego Gutierrez  
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RAS  
May 28, 2004